



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/499,450 | 02/07/2000 | Theodore M. Garver | 51-06 US CIP | 1302 |

7590

03/31/2003

Freedman & Associates
117 CentrepoinTE Drive
Suite 350
Nepean, ON K2G 5X3
CANADA

EXAMINER

SMITH, ZANDRA V

ART UNIT PAPER NUMBER

2877

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/499,450

Applicant(s)

GARVER ET AL.

Examiner

Zandra V. Smith

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 3-9, 13-26, 31-34, 38, 39, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-9, 13-26, 38 and 39 is/are allowed.
- 6) ☒ Claim(s) 31, 34, 43 and 44 is/are rejected.
- 7) ☒ Claim(s) 32 and 33 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Application/Control Number: 09/499,450

Art Unit: 2877

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31, 34, and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Clarke (5,139,334)* and *Yamaguchi et al (EP 714,025 A1)*, and further in view of *Uetani et al. (5,205,965)*.

As to **claims 31, 34, and 43**, Clarke discloses a system for hydrocarbon analysis of a sample based on low resolution Raman spectral analysis, comprising;

irradiating a portion of a sample with laser light for generating a Raman spectrum;

obtaining two measurements at two different wavenumbers from the Raman spectrum;

and

formulating a relationship by comparing a ratio (col. 3, line 65-col. 4, line 20). Clarke differs from the claimed invention in that a potential of an oxidative reductive process is not determined, however Yamaguchi discloses a system for determining hydrogen peroxide by Raman scattering (title) and the amount of hydrogen peroxide in the sample is directly related to the oxidative reductive process. It would have been obvious to one having ordinary skill in the art at the time of invention to use the system of Clarke to determine a potential of an oxidative reductive process since the amount of hydrogen peroxide in the system is related to the oxidative process.

Application/Control Number: 09/499,450

Art, Unit: 2877

In addition, Clark and Yamaguchi fail to specifically disclose that the sample includes molecules with elements that exist in one of a plurality of oxidation states, however Uetani discloses that in an oxidative process hydrogen peroxide has elements that exist in one of a plurality of oxidation states (col. 5, lines 32-40). Therefore, the limitation is inherently met.

As to **claim 44**, Clark, Yamaguchi, and Uetani discloses everything claimed, as applied above, with the exception the use of a Nernst equation, however since it has been held that the selection of a known material on the basis of its suitability for the intended use is within the level of ordinary skill for a worker in the art, the use of a Nernst equation would have been obvious to one having ordinary skill in the art at the time of invention.

Allowable Subject Matter

Claims 3-9, 13-26, and 38-39 are allowable over the prior art of record.

Claims 33-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination, fails to disclose or render obvious varying the amount of peroxy ion by varying the pH of a solution, the particular oxidative molecules, determining a characteristic of a pulp, a third measurement, or expression of the non-linear relationship, in combination with the rest of the limitations of claim.

Response to Arguments

Applicant's arguments with respect to claims 31-34 have been considered but are moot in view of the new ground(s) of rejection.

Application/Control Number: 09/499,450

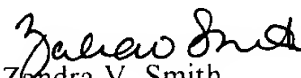
Page 4

Art Unit: 2877

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zandra V. Smith whose telephone number is (703) 305-7776. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703)308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0530.


Zandra V. Smith
Primary Examiner
Art Unit 2877

March 21, 2003